## 1 WHAT IS CLAIMED IS

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1. A semiconductor device which allows an input signal thereto to select one of N operation modes, and operates in said one of N operation modes, said semiconductor device comprising:

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a selection circuit for selecting an operation mode from said N operation modes when said input signal indicates said operation mode, and for selecting a predetermined operation mode from said N operation modes when said input signal is an undefined signal indicating none of said N operation modes; and an internal circuit operating in an operation

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2. The semiconductor device as claimed in claim 1, wherein said selection circuit comprises:

mode selected by said selection circuit.

a first circuit for selecting one of predetermined N-1 operation modes among said N operation modes by decoding said input signal; and

a second circuit for selecting, based on logic operation of outputs of said first circuit, a remaining operation mode, of said N operation modes when none of said N-1 operation modes is selected.

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35 3. The semiconductor device as claimed in claim 2, wherein said selection circuit further comprises N-1 signal lines connecting between said

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first circuit and said second circuit, and said second 1 circuit is located in a proximity of said internal circuit or within said internal circuit.

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4. The semiconductor device as claimed in claim 1, wherein said selection circuit comprises: a third circuit for detecting said undefined

signal; a fourth circuit, responsive to an output

from said third circuit, for storing said input signal when said input signal is not said undefined signal, and for holding a currently stored input signal when said input signal is said undefined signal; and

a fifth circuit for selecting one of said N operation modes by decoding said input signal stored in said fourth circuit.

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5. A semiconductor device which allows an input signal thereto to select one of N operation modes, and operates in said one of N operation modes, said semiconductor/device comprising:

a selection circuit for selecting an operation mode from said N operation modes when said input signal indicates said operation mode, and for selecting a predetermined operation mode from said N operation modes when said input signal is an undefined signal ind/icating none of said N operation modes;

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a core circuit for storing data; and a control circuit operating in an operation mode selected by said selection circuit to control said circuit.

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1	6. The semiconductor device as claimed in
	claim 5, wherein said selection circuit comprises:
	a first circuit for selecting one of
	predetermined N-1 operation modes among said N
5	operation modes by decoding said input signal; and
	a second circuit for selecting, based on
	logic operation of outputs of said first circuit, a
	remaining operation mode of said N operation modes when
	none of said, N-1 operation modes is selected.

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7. The semiconductor device as claimed in claim 6, wherein said selection circuit further 15 comprises N-1 signal lines connecting between said first circuit and said second circuit, and said second circuit is located in a proximity of said internal circuit or within said internal circuit.

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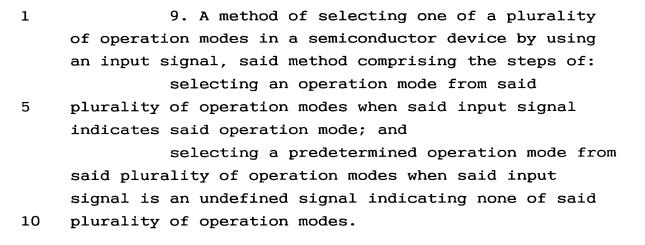
8. The semiconductor device as claimed in 25 claim 5, wherein said selection circuit comprises: a third circuit for detecting said undefined signal;

a fourth circuit, responsive to an output from said third circuit, for storing said input signal when said input signal is not said undefined signal, and for holding a currently stored input signal when said input signal is said undefined signal; and

a fifth circuit for selecting one of said N operation modes by decoding said input signal stored in said fourth circuit.

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10. A method of selecting one of N operation modes in a semiconductor device by using an input signal, said method comprising the steps of:

selecting one of predetermined N-1 operation modes among said N operation modes by decoding said input signal; and

selecting a remaining operation mode of said N operation mode when none of said N-1 operation modes is selected.

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11. A method of selecting one of a plurality of operation modes in a semiconductor device by using an input signal, said method comprising the steps of:

detecting whether said input signal is an undefined signal indicating none of said plurality of operation modes;

storing said input signal to a register when said input signal is not an undefined signal;

holding said input signal currently stored in said register when said input signal is an undefined

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